

Erratum

The article entitled "Kinetics of HLA-C Ligands with Natural Killer Cells Inhibitory Receptors," by M. Valés-Gómez, H. T. Reyburn, M. Mandelboim, and J. L. Strominger (*Immunity* 9, 337–344) requires correction. Due to an oversight on the authors' part, the calculated K_D values, equilibrium dissociation constants, for NKIR binding to HLA-C shown in Table 1 were actually K_A (μM^{-1}), equilibrium binding constants. The correct values for K_D (μM) are now shown in Table 1, reprinted below. This change results in a correction in the calculated k_{on} values, the new values for which are now correctly shown in the footnote. The description (page 340) of Figure 4 (page 341) requires corresponding corrections of the K_D values.

These changes do not affect the main conclusions of the paper: HLA-C binds p58 NKIR with extremely fast association and dissociation rate constants, and the kinetics of this interaction are far more similar to the interactions of adhesion molecules with their ligands than those of TCRs with their ligands. The rapidity of the interaction is readily evident from inspection of Figure 3.

Table 1. Affinity and Half-Life of Several Immunologically Relevant Receptor/Ligand Complexes Studied by SPR

| | k_{on} ($\text{M}^{-1}\text{s}^{-1}$) | k_{off} (s^{-1}) | $t_{1/2}$ (s) | K_D (μM) | Reference |
|---------------------------------------|---|--------------------------------------|---------------|-------------------------|------------------------------|
| NK Inhibitory Receptors/HLA-C Ligands | | | | | |
| NKAT1/HLA-Cw6 ¹ | * | >2.6 | <0.27 | 11.2 | This report |
| HLA-Cw6/NKAT1 | * | >2.02 | <0.34 | 9.8 | |
| NKAT2/HLA-Cw7 | * | >1.5 | <0.46 | 9.1 | |
| HLA-Cw7/NKAT2 | * | >1.06 | <0.65 | 7.8 | |
| T Cell Receptors/MHC Ligands | | | | | |
| TCR 42.12/H-2K ^b -E1 | 3023 ² | 0.068 | 10.2 | 23 ⁴ | (Alam et al., 1996) |
| TCR 2C/H-2L ^d | 8300 | 0.027 | 26 | 3.3 | (Garcia et al., 1996) |
| TCR HY/H-2D ^b | 6200 | 0.145 | 4.8 | 23 ⁴ | |
| TCR HY/H-2D ^b /CD8 | 5100 | 0.15 (fast) | 4.6 | 29 ⁴ | |
| | 5100 | 0.01 (slow) ³ | 70 | 1.9 ⁴ | |
| TCR 2B4/I-E ^k -MCC | 900 | 0.057 | 12 | 60 | (Matsui et al., 1992) |
| B Cell Receptors (Antibody)/Antigen | | | | | |
| IgM: CB03/Kcasein | 110,000 | 0.0012 | 580 | 0.011 ⁴ | (Roggenbuck et al., 1994) |
| IgG: MAb18/p24 | 270,000 | 0.00025 | 2800 | 0.001 ⁴ | (Karlsson et al., 1991) |
| Adhesion Molecule Receptors/Ligands | | | | | |
| CD80/CTLA-4 Ig | >900,000 | >0.43 | <1.6 | 0.26 | (van der Merwe et al., 1997) |
| CD80/CD28 Ig | >600,000 | >1.6 | <0.4 | 2.5 | (van der Merwe et al., 1997) |
| CD2(human)/CD58 | >400,000 | 4 | 0.17 | 9 | (van der Merwe et al., 1994) |
| CD2(rat)/CD48 | >100,000 | >6 | 0.12 | 60 | (van der Merwe et al., 1993) |
| Glycam1(mouse)/CD62L(rat) | >100,000 | >10 | <0.069 | 108 | (Nicholson et al., 1998) |

* The k_{on} rates are too rapid for accurate determination by SPR. The k_{on} values calculated from k_{off}/K_D for the NKAT/HLA orientation are 2.3×10^5 and 1.6×10^5 , respectively, and for the HLA/NKAT orientation, 2.1×10^5 and 1.4×10^5 , respectively. See also the discussion of the possible effects of rebinding and flow rate on these values on pages 339–340.

¹ The molecule immobilized on the chip is written first.

² Values vary when MHC molecules were loaded with different peptides.

³ Influence of CD8 on binding of a low affinity TCR/MHC pair.

⁴ Calculated K_D .